

Amendments

In the Claims:

Cancel claims 78, 83, 141 and 142 without prejudice to or disclaimer of the subject matter therein.

In claim 112, next to last line, delete "high-density."

Rewrite claims 1, 15, 22, 106, 146, 152 and 153 as follows.

Sub E1

1.

(Amended) A method of cultivating a mammalian cell in suspension *in vitro*,

comprising:

- (a) obtaining a mammalian cell to be cultivated in suspension; and
- (b) contacting said cell with a serum-free, chemically defined cell culture medium comprising at least one polyanionic or polycationic compound, wherein said medium supports the cultivation of said cell in suspension.

Sub E3 154

15.

(Amended) A method of cultivating a mammalian cell in suspension *in vitro*,

comprising:

- (a) obtaining a mammalian cell to be cultivated in suspension; and
- (b) contacting said cell with a chemically defined cell culture medium comprising the ingredients ethanolamine, D-glucose, N-[2-hydroxyethyl]piperazine-N'-[2-ethanesulfonic acid] (HEPES), insulin, linoleic acid, lipoic acid, phenol red, PLURONIC F68, putrescine,

Jul E3
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sodium pyruvate, transferrin, L-alanine, L-arginine, L-asparagine, L-aspartic acid, L-cysteine, L-glutamic acid, L-glutamine, glycine, L-histidine, L-isoleucine, L-leucine, L-lysine, L-methionine, L-phenylalanine, L-proline, L-serine, L-threonine, L-tryptophan, L-tyrosine, L-valine, biotin, choline chloride, D-Ca⁺⁺-pantothenate, folic acid, *i*-inositol, niacinamide, pyridoxine, riboflavin, thiamine, vitamin B₁₂, at least one polyanionic or polycationic compound, one or more calcium salts, KCl, one or more iron salts, one or more magnesium salts, one or more manganese salts, NaCl, NaHCO₃, Na₂HPO₄, one or more selenium salts, one or more vanadium salts and one or more zinc salts,

wherein each ingredient is present in an amount which supports the cultivation of said cell in suspension.

Jul E5
C3

(22.) (Amended) A method of cultivating a mammalian cell in suspension *in vitro*, comprising:

- (a) obtaining a mammalian cell to be cultivated in suspension; and
- (b) contacting said cell with a serum-free, chemically defined cell culture medium obtained by combining a basal medium with at least one polyanionic or polycationic compound, wherein said medium supports the cultivation of said cell in suspension.

Jul E7
C4
contd.

(106.) (Twice amended) A method of cultivating mammalian cells in suspension culture [to high density] and/or expressing a recombinant protein, said method comprising

- (a) contacting said cells with a eukaryotic cell culture medium comprising a Fe²⁺ chelate and/or a Fe³⁺ chelate, and a Zn²⁺ salt,

Sub E7
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Concl.

wherein said Fe^{2+} chelate, if present, said Fe^{3+} chelate, if present, and said Zn^{2+} salt are [each] present in an amount which supports the growth of mammalian cells in culture, wherein said medium is capable of supporting the [high-density] growth of mammalian cells in suspension culture and/or the expression of recombinant protein; wherein said medium does not contain insulin; and

(b) cultivating said mammalian cells under conditions suitable to support the growth of said cells [to high density] and/or the expression of said recombinant protein.

CS 146. (Amended) The method of claim 106, wherein said eukaryotic cell culture medium does not contain transferrin [contains neither transferrin nor insulin].

Sub D1 152. (Amended) The method of claim 106, wherein the concentration of [said] Fe^{2+} or Fe^{3+} is about 0.00028 to 0.011 g/L and [said] the concentration of [said] Zn^{2+} is about 0.00007 to 0.00073 g/L.

CS 153. (Amended) The method of claim 152, wherein [said] the concentration of [said] Fe^{2+} or Fe^{3+} is about 0.0011 g/L and [said] the concentration of [said] Zn^{2+} is about 0.000354 g/L.

Add new claims 154-158.

CS 154. The method of claim 15, wherein said medium is serum-free.